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AUTHOR Johnson, Mark D.
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ABSTRACT

Examined is the utility of evaluation research as a framework for converting raw data into a form that is useful to the decisionmaker. The origins and purposes of evaluation research and the relationship between the evaluator and decisionmaker are examined, and some of the major issues in evaluation research methodology are reviewed. The role of the evaluator in the decisionmaking process is discussed, with one section addressing the issue of what constitutes an effective evaluation. Finally, the implications of the evaluation model for the policy role of institutional research are considered. (Author/MSE)

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EVALUATION AS A MODEL

FOR DECISION-ORIENTED RESEARCH

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Mark D. Johnson
Director of Institutional Research
Allegheny College
Meadville, Pennsylvania 16335
(814)724-5374

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Abstract

This paper examines the utility of evaluation research as a framework for converting raw data into a form that is useful to the decision maker. There are six major sections. The first section examines the origins and purposes of evaluation research. The second section examines the relationship between the evaluator and the decision maker. The third section reviews some of the major issues in evaluation research methodology. In the fourth section, the author discusses the role of the evaluator in the decision making process. The fifth section addresses the issue of what constitutes an "effective" evaluation. The final section of the paper focuses on the implications of the evaluation model for the policy role of institutional research.

Introduction

One of the major growth areas in applied social science research since the 1960s has been the field of evaluation or evaluation research. The major centers of activity in the evaluation field, to date, have been the testing and measurement movement in basic education and, more recently, the evaluation of federal programs. Although evaluation is by no means a new concept in the field of higher education, the basic premise of this paper is that the institutional research community still has much to gain from the systematic exploration of evaluation as a model for decision-oriented research.

Any type of research, including that which is oriented toward supporting the decision making process, involves at least two major tasks: data collection and analysis. Although there is still room for improvement, the field of institutional research has made some important progress in the development and maintenance of institutional data bases. The problem addressed in this paper is that there are still major gaps between the institutional data now available and the needs of the decision maker for analysis. The purpose of the paper is to explore evaluation or evaluation research as a model for converting raw data into a form that is useful to the decision maker.

The use of the term "model" in connection with evaluation research is somewhat misleading. There is no universally accepted model of evaluation. In fact, one of the goals of this paper is to examine the range of activities that can be included in the evaluation process. Nevertheless there is a need for an initial definition of evaluation--at least as a point of departure. For purposes of this analysis, evaluation will be defined as the systematic assessment of the effects of a program with a view toward determining whether that program should be maintained, modified, or replaced. Although there are many different ways of characterizing the evaluation process, evaluation typically includes some of all of the following steps (see Dressel 1976):

1. Formulating or clarifying program objectives
2. Specifying the criteria that will be used to assess the accomplishment of those objectives
3. Defining and collecting the data required to measure the evaluation criteria
4. Determining whether the program has been implemented as planned (process evaluation)
5. Assessing the intended and unintended impacts of the program
6. Recommending the maintenance, modification, or replacement of the program
7. Setting up a continuing review of program results

Utilizing this definition as a point of departure, the present analysis examines the basic characteristics of the evaluation process and the major issues that evaluators confront. Specifically, the paper consists of six major sections. The first section examines the origins and purposes of evaluation research. The second section discusses the relationship between the evaluator and the decision maker. The third section provides an overview of the methodology of evaluation research. In the fourth section, the author examines the role of the evaluator in the decision-making process. The fifth section addresses the issue of what constitutes an "effective" evaluation. The concluding section presents a set of guidelines for institutional research.

The Origins and Purposes of Evaluation Research

The antecedents of modern evaluation research were the educational testing and measurement movement and applied social science research, dating back at least to the 1930s. The emergence of evaluation research as a distinct field of study, however, is probably more appropriately associated with the decade of the 1960s. The major impetus for the development of evaluation research during this

period was the implementation of the major educational and social programs of the Kennedy and Johnson administrations.

Today evaluation research is probably best characterized as a multidisciplinary application of social research techniques to the assessment of social and educational programs (Bernstein and Freeman 1975, p. 18). The disciplines involved include sociology, psychology, political science, economics, and education. Although the field of evaluation research is still best characterized as an "emerging" field of study, the level of activity is already substantial. Symbolic of this growth are the evaluation research centers that have been organized at several major universities and the growth of numerous professional organizations in the field of evaluation--including the Evaluation Network, the Evaluation Research Society, and the Special Interest Group on Evaluation of the American Educational Research Association.

The purposes and goals of evaluation research are as diverse as the disciplines involved and the programs and policies that are evaluated. However, an examination of some of the major approaches to evaluation provides a sense of the range of activity involved. There are four basic types of evaluation: process evaluation, goal-oriented or "impact" evaluation, goal-free evaluation, and comprehensive evaluation (see Dressel 1976, pp. 3 and 12, Gardner 1977, pp. 575-576, and Weiss 1975, p. 13). A brief description of these four basic approaches provides a fairly comprehensive, "functional" view of the purposes of evaluation research.

Most evaluation research to date has been process-oriented (Dressel 1976, p. 131 and Weiss 1972b, p. 17). The basic purpose of process evaluation is to determine whether a program is being implemented as intended (Bernstein and Freeman 1975, p. 18). Ideally, this type of evaluation provides immediate feedback to both the policy maker and the program administrator regarding the operation of the program (Rossi and Wright 1977). The primary limitation of this approach is

that it does not always provide the decision maker with information about the "effectiveness" of the program in achieving its intended goals.

Goal-oriented or "impact" evaluation focuses on the accomplishment of program objectives (Bernstein and Freeman 1975, p. 19). Although this type of evaluation is obviously desirable from the standpoint of the policy maker, it too has a number of limitations, stemming largely from the difficulties involved in identifying measurable program objectives. Even if the objectives have been specified in measurable form, they are likely to be "political" and unstable in nature. That is, program objectives are often designed to generate initial political support and they are therefore subject to change when the program is implemented (Weiss 1975, p. 16). Indeed, if the program staff is held to the original program objectives simply to facilitate evaluation, the resulting inflexibility may hinder the growth and improvement of the program (Dressel 1976, p. 7).

Another limitation of goal-oriented evaluation is that it may force the evaluator to assume that the original goals of the program are desirable. Moreover, the goal-oriented evaluator may tend to overlook the unintended "side effects" of the program. In response to these concerns Michael Scriven has conceived and promoted a "goal-free" approach to evaluation, in which the evaluator focuses on what actually happens rather than on what is supposed to happen as a result of the program (Scriven 1973 and Gardner 1977, p. 583). Although this type of evaluation may have some intrinsic appeal to the researcher, Dressel (1976, p. 111) suggests that this type of "exploratory research" (examining all possible variables and effects) is not as useful to the decision maker because it tends to focus less on the specific decisions that need to be made.

Comprehensive evaluation represents an attempt to combine process and impact evaluation in order to provide both feedback on the operation of the program and an overall assessment of its effectiveness. Some observers believe that it is unrealistic to expect an evaluator to play both roles effectively--partly

because of the magnitude of the task and partly because the two approaches require slightly different prospectives. Process evaluation requires a commitment to the improvement of the program, while impact evaluation requires an objective assessment of whether the program is accomplishing its goals (Weiss 1972d, p. 15). Although there is little disagreement about the complexity of comprehensive evaluation, a number of evaluation experts argue persuasively that process and impact cannot be separated. If there is any possibility of replicating the program, modifying it, or substituting another program to accomplish the same objectives, the decision maker must know not only whether the program works but why (Bennett and Lumsdaine 1975, p. 17, Bernstein and Freeman 1975, p. 20, and Lumsdaine and Bennett 1975, p. 536).

The Evaluator and the Decision Maker

If one accepts the premise that the major purpose of evaluation is to support the decision maker, it follows that the selection of one of the four basic types of evaluation--or any combination thereof, should be based on the identification of the decision maker's needs. As suggested in the previous section, any given program or policy involves at least two types of decision makers--the program administrator and the policy maker. The specific needs and interests of these two individuals are rarely the same. This section focuses on the interests of the administrator and the policy maker and on their respective relationships with the evaluator.

The program administrator rarely asks for an evaluation, unless he is required to do so. Indeed, he may perceive an evaluation as a nuisance and a threat (Scriven 1967 and Suchman 1972). However, assuming that an evaluation is required, the program administrator is most likely to be interested in the process approach, which may provide him with useful feedback, without confronting the sensitive issue of program survival.

The relationship between the evaluator and the program administrator is one of the most complex issues in evaluation research. There are at least four aspects of this relationship that merit attention. First, as a rule, a program administrator should not have administrative responsibility for the evaluation of his program. Second, an unwilling administrator is unlikely to cooperate either in the evaluation process or in the implementation of evaluation recommendations. Third, whenever possible it is desirable to minimize the threat of evaluation by focusing on the program, not its personnel. Fourth, a program administrator will have a natural tendency to coopt an evaluator by cultivating a personal relationship and by encouraging the evaluator to internalize the goals of the program (Davis and Salasin 1975, p. 623, Campbell 1975, p. 73, Lumsdaine and Bennett 1975, p. 543, and Weiss 1975, p. 21).

In contrast to the program administrator, the policy maker's frame of reference is likely to be the inevitable array of competing claims for organizational resources and the need for the effective, efficient, and equitable distribution of those resources (Perkins 1977 and Rossi and Wright 1977). At first glance, it would appear that the evaluator can fulfill the needs of the policy maker in a fairly straightforward manner by focusing on program impact. In fact, even in those rare cases where the objectives of the program are specified in measurable terms, the task of meeting the evaluation needs of the policy maker is rarely a simple matter.

Although there are no "magic formulas" for policy-oriented evaluation, there are a number of general guidelines that may be of help. First, the policy maker may have a general political motivation for requesting an evaluation, but he is unlikely to have specific ideas about what can be accomplished through evaluation or about what form the evaluation should take. To the extent possible, it is desirable to reach an early understanding about evaluation objectives and about the types of information required to fulfill those objectives. Second,

in order to keep the evaluation process in perspective, it is important to remember that evaluations are rarely the sole, or even major basis for policy decisions. Third, the extent to which the evaluation will be useful to the policy maker will depend on the extent to which the evaluator can draw conclusions and recommendations beyond the impacts of the individual program. Either the evaluator or the decision maker must determine how the program relates to the overall objectives of the organization or institution and the optimal distribution of resources to fulfill those objectives. Finally, if the evaluation is to have an impact on programmatic decisions, the evaluator must minimize organizational resistance to the evaluation, and he must fulfill the practical needs of the decision maker for timely, intelligible, and concise information.

Evaluation Methodology

It is apparent from the preceding discussion that the evaluation process is partly a matter of "strategy." However, it is also a highly technical process, requiring proficiency in the area of research design. It is not possible to provide a complete accounting of the complexities of evaluation research methodology within the confines of the present paper. However it is feasible to introduce some of the basic issues involved.

The first major issue is whether evaluation research requires a distinct methodology or whether it is largely an application of the general methods of social science research. There are two schools of thought on this matter. The first school suggests that, given the needs of the decision maker for timely information, it is necessary to make use of all available sources of information even when those sources do not conform to the methodological standards of social science research. Although no evaluation researcher appears willing to "champion" this position, there are some major figures in the field who suggest that timeliness may be more important than "perfection" (Coleman 1975, p. 22 and Dressel 1976, p. 22). The opposing point of view is that

methodological rigor is even more important in evaluation research because the "stakes" are generally higher than they are in basic research (Johnson 1975). Since evaluation researchers are committed to both methodological quality and research utilization, it is unlikely (and perhaps undesirable) that this "debate" will ever be resolved. The essential point is that evaluation research, unlike basic research, is a constant "balancing act" between the standards of the research methodologist and the needs of the decision maker.

A second and related issue is the relative value of quantitative versus qualitative data. Like their counterparts in basic social science research, evaluation researchers have placed increasing emphasis on the use of quantitative data and multivariate analytical techniques (Bernstein and Freeman 1975, p. 73). Moreover, there is an extent to which the "consumer" of evaluation research tends to give greater weight to quantitative research that appears to provide more definitive "answers."

Although there is probably no way to stem the tide toward quantification, even if that were desirable, there are some important points to remember. First, the selection of evaluation criteria should not be based on the ability to quantify but on the identification of the outcomes that are considered central to the effectiveness of the program (Bennett and Lumsdaine 1975, p. 34 and Rossi and Wright 1977, p. 36). Second, the primary methodological goals of any type of research are validity (relevance) and reliability (accuracy)--which are easier to measure when using quantitative data but are not unobtainable in qualitative research. Third, the type of data required is dependent in part upon the objectives of the evaluation. Process-oriented evaluations generally require at least some qualitative, descriptive information about the program, while impact evaluations tend to focus on testing and attitudinal data that are more amenable to quantification (Rossi and Wright 1977, p. 21). Fourth, it is probably desirable in most cases

to use multiple sources of data that include both quantitative and qualitative dimensions (Bernstein and Freeman 1975).

A third major debate concerning the methodology of evaluation relates to the desirability of experimental design. The primary advantage of the classical experiment is the ability to "control" for the effects of extraneous variables, thereby enabling the researcher to isolate the effects of the program or treatment being evaluated. The problem is that evaluation researchers rarely have an opportunity to examine social or educational programs under laboratory conditions (Lumsdaine and Bennett 1975 and Rossi and Wright 1977). Campbell (1975) suggests that some of the ethical problems involved in social experimentation may be overcome by "piloting" all social and educational reforms as experiments. A second, and in many cases more practical solution is to utilize "quasi-experimental" research designs which enable the researcher to approximate experimental control through the use of statistical techniques and/or surrogate control groups. Examples of such designs are cross-sectional studies, which explore variations among different populations, and longitudinal studies, which examine variations within a single population over time (Campbell and Stanley 1966, Rossi and Wright 1977, and Worthen and Sanders 1973).

The Role of the Evaluator

Although an attempt has been made throughout this paper to examine the evaluation process in the decision making context in which it operates, the preceding discussion of research methodology has focused primarily on the internal dynamics of evaluation. The present section emphasizes the organizational context in which evaluation occurs and the implications of that context for the role of the evaluator. Specifically, what is the role of the evaluator in the development of policy? What is the relationship between politics and evaluation? What are the essential skills of the evaluator? And what are the relative merits of internal and external evaluation?

The evaluator is viewed by some observers primarily as a research technician and by others as a policy analyst (House 1973, Johnson 1975, and Lumsdaine and Bennett 1975). The key question is whether the evaluator is expected to confine his efforts to the collection and presentation of information or whether he is expected to produce a set of policy recommendations. Once again, there is no simple answer to this question. It is largely a matter of administrative style and personal and professional relationships. However, as suggested in the next major section of this paper, the ability of the evaluator to make policy recommendations is likely to have a significant bearing on the impact of the evaluation on the decision making process.

A closely related issue is the relationship between evaluation and the political process. Dressel (1976, p. 453) points out that decisions are made in the political process on the basis of interests and influence, while evaluation attempts to promote "rational" (data-based) decision making. It is, of course, desirable for the evaluator to maintain an objective posture toward the program or policy being evaluated. However, the evaluator who is insensitive to the politics of the decision making process is unlikely to have much of an impact. Weiss (1975, pp. 13-14) suggests that evaluation itself is a political process in which the evaluator must learn to operate. The program being evaluated is typically a creature of the political process. The decision to evaluate is often a political decision. The decision of who will evaluate is political in nature. And the evaluator as policy analyst will ultimately lend support to one of the positions in the policy debate.

If the evaluator is viewed as more than a technician, what are the skills required to effectively perform the evaluation role? Weiss (1972b) suggests that in addition to research skills the evaluation researcher must possess political, social, interpersonal, and communication skills. Dressel (1976, p. 135) suggests that it is not even possible for a single individual to acquire all the technical

skills required in the evaluation process. In most cases, it is probably undesirable to allow a single individual to assume sole responsibility for a program evaluation. Both for technical and political reasons, it seems almost essential that the evaluator adopt a "team" approach. Depending on exact composition of the evaluation team, its members can be called upon either to participate in the design and implementation of the evaluation and/or to lend political support to the evaluation process.

The final aspect of the evaluator role that requires some attention relates to the relative merits of internal versus external evaluation. In this regard, the "conventional wisdom" suggests that an internal evaluator is likely to have a better understanding of the program, while an external evaluator is likely to be more "objective" (Weiss 1972b, p. 18). Scriven (1967, pp. 44-45) suggests that, in general, internal evaluators are likely to play a more effective role in process evaluation and external evaluators are more likely to be effective in assessing impact.

What Constitutes an "Effective" Evaluation

For present purposes, an "effective" evaluation will be defined as an evaluation that is "useful" to the decision maker in so far as it provides him or her with a sound analytical basis for making programmatic or policy decisions. The task of specifying the characteristics of an effective evaluation is a difficult one. Bernstein and Freeman (1975, p. 5) found that, at least at the federal level, there have been relatively few evaluation studies that have had much of an impact on policy, so there are relatively few "models" upon which to base the identification of desirable characteristics.

Despite the difficulties involved, the experience to date does provide some insights into the issue of evaluation impact. The impact of an evaluation is a function of both the methodological quality of the evaluation and the sensitivity of the evaluator to the problems of research utilization. With

regard to methodology, it is ironic that the methodological standards of the researcher and the needs of the decision maker do not always complement one another. The conscientious researcher is oriented toward identifying all available sources of data; he is likely to utilize multivariate analytical techniques which frequently reveal that any given variable (including the program treatment), by itself, has relatively little impact; and he is prone to emphasize the limitations of his findings because of measurement problems and the inability to exercise experimental control. The decision maker, in contrast, is frequently looking for timely and decisive answers to the problems that he confronts.

There is no question that methodological rigor is important. Indeed, a methodologically weak evaluation is likely to lack the credibility required to support a decision. Without underestimating the importance of sound research, however, the primary concern of the present paper is with the process of research utilization. The central message in this regard is that it is not enough to conduct methodologically sound research.

The subject of research utilization, an emerging field of study in itself, cannot be covered in any great detail herein. However, in capsule form, there are at least five general guidelines that emerge from the present analysis. In fact, these guidelines represent a summary of many of the points that have been made thus far. First, the evaluation process must reflect a sensitivity to organizational politics--the interests and sources of influence that will come to bear on programmatic decisions. Second, an alienated program staff is likely to resist both the evaluation process and its results. Third, the evaluation report must be in a form and style that policy makers and their staffs can understand and assimilate. A one hundred page evaluation report is likely to become a "shelf document." Fourth, the results must be reported before the decision has to be made. Finally, an evaluator who confines his efforts to "reporting the facts" is unlikely to have much of an impact because few decision makers have

the time or inclination to analyze raw data. The "useful" elements of an evaluation, from the standpoint of a decision maker, are the policy recommendations that the evaluator can infer from the data (Bennett and Lumsdaine 1975, p. 15, Coleman 1975, p. 22, Rossi and Wright 1977, p. 9, Suchman 1972, p. 80, and Weiss 1972b, p. 112).

Summary and Conclusions: Some Guidelines for Institutional Research

The purpose of this paper has been to examine the utility of evaluation as a model for decision-oriented research. Although evaluation research must still be characterized as an emerging field of study, it provides a number of important insights into the process by which social science research may be used in support of the educational decision-making process at the federal, state, and institutional levels. The concluding section of this paper focuses specifically on those insights that are applicable to institutional research. However, most of the guidelines outlined below are broadly applicable to the area of policy research in general.

The first issue addressed in this paper was the purposes of evaluation research. It has been suggested that there are four basic types of evaluation: process evaluation, impact evaluation, goal-free evaluation, and comprehensive evaluation. In some cases, the type of evaluation required will be specified by an institutional policy maker or external agency. Frequently, however, this decision is left to the evaluator. In either case, if the time, resources, and staff are available, the arguments in favor of comprehensive evaluation are persuasive. The policy-making process is rarely a "zero-sum" game. Once an institutional goal has been defined, the policy question is no longer whether the goal should be pursued but how it can best be accomplished. In such cases, it is insufficient to address the question of <u>whether</u> a program works without also determining <u>why</u>.

The second issue addressed was the relationship between the evaluator and the decision maker. To the extent possible, it seems desirable to address both the need of the program administrator for "feedback" concerning the operation of the program and the need of the policy maker for information concerning the program's impact. The delicate relationship between the evaluator and the administrator requires a careful balancing act between the need for administrative cooperative and the danger of cooptation. The key point, however, is that an unwilling administrator is unlikely to cooperate either with the evaluation or the implementation of its results. With regard to the policy maker, it is important to remember that an evaluation study will rarely be the sole or even major basis for a policy decision. However, the extent to which evaluation will have an impact is a function of at least two major factors. The first is the extent to which the evaluator is able to translate the results of his research into policy relevant analysis (policy recommendations or alternative courses of action). The second is the ability of the evaluator to meet the need of the policy maker for timely and concise information.

The third issue addressed herein was the methodology of evaluation research. From the researcher's perspective, the ideal is probably to address every policy question through the careful application of applied social science research techniques. However, given the inevitable constraints on time and resources, it is usually necessary to make use of all available sources of data. It is further suggested that evaluation criteria should be based not on the ability to quantify but on the identification of outcomes that are central to the effectiveness of the program; that validity and reliability can be achieved in both quantitative and qualitative research; that process and impact evaluations may require different types of data; and that it is desirable, whenever possible, to employ multiple sources of data. Finally, the need for experimental control can be addressed either through the use of a "pilot" program or through the application of quasi-experimental designs.

The fourth issue addressed was the role of the evaluator. It has already been argued that the evaluator should play not only the role of a research technician but also that of a policy analyst. Admittedly, the ability of the evaluator to play this role is largely a function of administrative style and of professional and personal relationships. The evaluator must also recognize that he or she operates in a political context and that a single individual rarely possesses all the interpersonal, communications, and technical skills required to implement an effective evaluation. The "team" approach to evaluation appears desirable for both technical and political reasons. The final aspect of the evaluator role discussed herein was the respective roles of the internal and external evaluator. This issue is of particular interest to the institutional researcher. At least in theory, it would seem possible for the institutional researcher to combine the "understanding" of the internal evaluator with the "objectivity" of the external consultant.

The implementation of an "effective" evaluation in any context requires a combination of methodological skills and the ability to fulfill the needs of the decision maker. The issue of "research utilization" in the institutional context represents the central concern of this paper. In order to make a maximum contribution to the decision-making process, the institutional researcher in the evaluation role must meet at least five major requirements. He must tap all the research skills and data sources available to him. He must remain sensitive to the political context in which he operates. He must learn to cooperate with program staffs without compromising his objectivity. He must provide the policy maker with timely and concise information. And, perhaps most important, he must be able to translate the results of his research into viable policy alternatives and recommendations.

References

Bennett, C. A. and Lumsdaine, A. A. Evaluation and experiment: Some critical issues in assessing social programs. New York: Academic Press, 1975.

Bernstein, I. N. and Freeman, H. E. Academic and entrepreneurial research: The consequences of diversity in federal evaluation studies. New York: Russell Sage Foundation, 1975.

Campbell, D. T. Reforms as experiments. In E. L. Struening and M. Guttentag (Eds.), Handbook of evaluation research (Volume I). Sage Publications, 1975, pp. 71-100.

Campbell, D. T. and Stanley, J. C. Experimental and quasi-experimental design for research. Chicago: Rand McNally, 1966.

Coleman, J. S. Problems of conceptualizing and measurement in studying policy impacts. In K. M. Dolbeare (Ed.), Public policy evaluation. Beverly Hills, California: Sage Publications, 1975, pp. 19-40.

Davis, H. R. and Salasin, S. E. The utilization of evaluation. In E. L. Struening and M. Guttentag (Eds.), Handbook of evaluation research (Volume I). Sage Publications, 1975, pp. 621-666.

Dressel, P. L. Handbook of academic evaluation. San Francisco: Jossey-Bass, 1976.

Gardner, D. E. Five evaluation frameworks: Implications for decision making in higher education. Journal of Higher Education, 1977, 48, 571-593.

House, E. R. (Ed.), School evaluation: The politics and the process. Berkeley, California: McCutchan Publishing Corporation, 1973.

Johnson, R. W. Research objectives for policy analysis. In K. M. Dolbeare (Ed.), Public policy evaluation. Beverly Hills, California: Sage Publications, 1975, pp. 75-94.

Lumsdaine, A. A. and Bennett, C. A. Assessing alternative conceptions of evaluation. In C. A. Bennett and A. A. Lumsdaine (Eds.), Evaluation and experiment: Some critical issues in assessing social programs. New York: Academic Press, 1975, pp. 525-553.

Perkins, D. N. T. Evaluating social interventions: A conceptual schema. Evaluation Quarterly, 1977, 1, 639-656.

Rossi, P. H. and Wright, S. R. Evaluation research: an assessment of theory, practice, and politics. Evaluation Quarterly, 1977, 1, 5-52.

Scriven, M. Goal-free evaluation. In E. R. House (Ed.), School evaluation: The politics and the process. Berkeley, California: McCutchan, 1973, pp. 319-328.

Scriven, M. The methodology of evaluation. In R. W. Tyler, R. M. Gagne, and M. Scriven (Eds.), Perspectives on curriculum evaluation. Chicago: Rand McNally, 1967, pp. 39-83.

Suchman, E. A. Action for what? A critique of evaluation research. In C. H. Weiss (Ed.), Evaluating action programs: Readings in social action and education. Boston: Allyn and Bacon, 1972, pp. 52-84.

Weiss, C. H. (Ed.), Evaluating action programs: Readings in social action and education. Boston: Allyn and Bacon, 1972a.

Weiss, C. H. Evaluation research: Methods for assessing program effectiveness. Englewood Cliffs, New Jersey: Prentice Hall, 1972b.

Weiss, C. H. Evaluation research in the political context. In E. L. Struening and M. Guttentag (Eds.), Handbook of evaluation research (Volume I). Beverly Hills, California: Sage Publications, 1975, pp. 13-26.

Worthen, B. R. and Sanders, J. R. Educational evaluation: Theory and practice. Worthington, Ohio: Charles A. Jones Publishing Company, 1973.